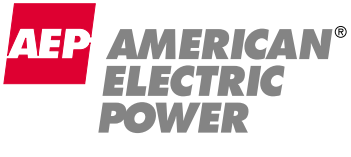
A WORD ABOUT PORTABLE ELECTRIC GENERATORS



AEP: America's Energy Partner℠

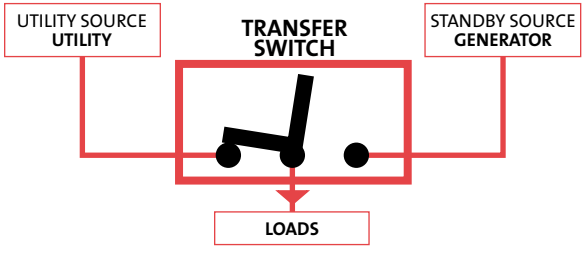
Portable fuel-burning generators may be used to supply electricity for the operation of small electrical appliances in the event of a power outage. The most common method for using a portable generator is to plug the appliance directly into the generator panel outlet. A less common and more complex method is the installation of a standby electrical system which should only be done by a licensed electrician. No matter how you plan to use the generator, please review all manufacturer's recommendations for safe use and maintenance of the system.

DIRECT PANEL PLUG-IN

The easiest method for using a generator is to simply plug the desired appliance, tool or motor directly into the proper electrical outlet on the generator. It is important to use only high quality, well insulated, grounded cord sets rated at the same or higher voltage and current than the generator outlet being used. If the generator outlet is protected by a circuit breaker, the cord set should be rated at the ***same*** amperes as the circuit breaker or ***higher***. Do not use worn, bare, frayed or otherwise damaged electrical cord sets with the generator. Using defective cord sets may result in electrical shock or damage to equipment and/or property.

STANDBY ELECTRICAL SYSTEM

If the generator is to be connected to the building's circuits or wiring, the installation must be made by a qualified, licensed electrician, and the following precautions must be taken. ***Never*** connect the generator's electrical output to any ***live*** home or building electrical circuits. ***Never*** plug a generator into a wall outlet. A positive method of isolating utility power circuits from the generator circuits must be provided. The most common isolation method is to install a double-throw, double-pole transfer switch.



The following hazards exist which require that different power sources be isolated:

1. DANGER! Electrocution of Power Company, Rescue, Fire, or other emergency personnel can result if the generator circuit is not properly isolated from the electric utility power circuit.

2. If generator and utility power are not isolated from each other and utility power is restored while the generator is still supplying power, utility power can backfeed through the generator. Damage to the generator and a possible electrical fire can then occur.

FINDING TOTAL WATTAGE

Connecting electrical loads in excess of the generator's wattage capacity can shorten the life of the unit or result in damage to the unit or to connected electrical devices.

To prevent overloading your generator, add up the total wattage of all loads to be connected to the unit at one time. This total should not be greater than the unit's rated wattage capacity.

The following chart is provided to assist you in determining how many items the generator can operate at one time. This chart only provides an estimate of wattage requirements. You should always refer to the device nameplate to determine actual wattages.

Some electric motors require about two and a half times more watts of power for starting than running. This surge of power lasts only a few seconds when starting such motors. Some high efficiency motors may require a larger generator for starting. Check the motor manufacturer's specification for proper wattage requirement. Be sure you allow for this high-starting wattage when selecting electrical devices to connect to your generator. First, figure the watts needed to start the largest motor. Add that figure to the running watts needed to operate all other connected loads at one time.

If the device nameplate list only volts and amps, multiply the volts times amps to obtain watts (Watts = Volts x Amps) for single phase devices.

TYPICAL WATTAGE REQUIREMENT CHART

WARNING: Refer to device nameplate for actual wattage.

	RUNNING WATTS
Air Conditioner (12,000 Btu)*	1700
Airless Spray Painter (hand held)	150
Airless Spray Painter (1/3HP)*	600
Battery Charger (20 amp)	500
Belt Sander (3")	100
Chain Saw	1200
Circular Saw (6-1/2")	1000
Coffee Maker	1000
Compressor (1/2HP)*	1400
Compressor (3/4HP)*	1800
Compressor (1HP)*	2000
Curling Iron	700
Deep Freeze*	500
Disc Sander (9")	1200
Edge Trimmer	500
Electric Nail Gun	1200
Electric Range (1 element)	1500
Electric Skillet	1250
Furnace Fan (1/4HP)*	800
Furnace Fan (1/3HP)*	1200
Hair Dryer	1200
Hand Drill (1/4")	250
Hand Drill (3/8")	500
Hand Drill (1/2")	750
Hand Drill (1")	1000
Impact Wrench	500
Jet Pump*	800
Lawn Mower	1200
Light Bulb	100
Microwave Oven	700
Milk Cooler*	1100
Oil Burner on Furnace	300
Oil Fired Space Heater (30,000Btu)	150
Oil Fired Space Heater (85,000Btu)	225
Oil Fired Space Heater (140,000Btu)	400
Radio	50
Refrigerator*	600
Slow Cooker	200
Submersible Pump (1/2HP)*	1500
Submersible Pump (1HP)*	2000
Submersible Pump (1-1/2HP)*	2800
Sump Pump*	600
Table Saw (10")	1750
Television	300
Weed Trimmer	500
Hedge Trimmer	450

NOTE: Heat pumps, electric furnaces, electric ranges and other high wattage equipment normally require non-portable generators.

**Allow $2^1/_2$ times the listed wattage for starting the indicated equipment. Check the motor manufacturer's specification for proper wattage requirement.*

IF YOU WANT TO USE A GENERATOR, PLAY IT SAFE.

– Observe manufacturer's recommendations for safe, efficient installation, operation and maintenance of your equipment.

– Do not plug the generator into a wall outlet.

– Use a licensed electrician to hook up standby electrical systems.

– Never handle any kind of electrical device while standing in water, while barefoot, or while hands or feet are wet.

– Operate this equipment only in the open air where adequate ventilation is available. Generator exhaust gases contain DEADLY carbon monoxide gas. This dangerous gas, if breathed in sufficient concentrations, can cause unconsciousness or death.

– Avoid contact with bare wires, terminals, etc. The generator supplies a very powerful voltage that can cause dangerous and possibly fatal electrical shock. Never permit any unqualified persons to operate or service the unit.

– Use a ground fault circuit interrupter (GFCI) in any damp or highly conductive area (such as metal decking or steel work).

– Consult a licensed electrician. The National Electric Code requires that the frame and external electrically conductive parts of the generator be properly bonded. Local electrical codes may also require proper grounding of the generator.

– Never operate the generator (a) in the rain; (b) in any enclosed compartment; (c) if changes in engine speed are evident; (d) if connected electrical devices overheat; (e) if generator electrical output is lost; (f) if sparking is evident; (g) if flame or smoke is observed; (h) if the generator vibrates excessively.

This brochure is not intended as a substitute for the owner's manual and/or operating instructions of the generator manufacturer. American Electric Power is in no way responsible for and assumes no liability for injury or damage arising from the use of portable electric generators.